harman/kardon hk460i

owner's manual
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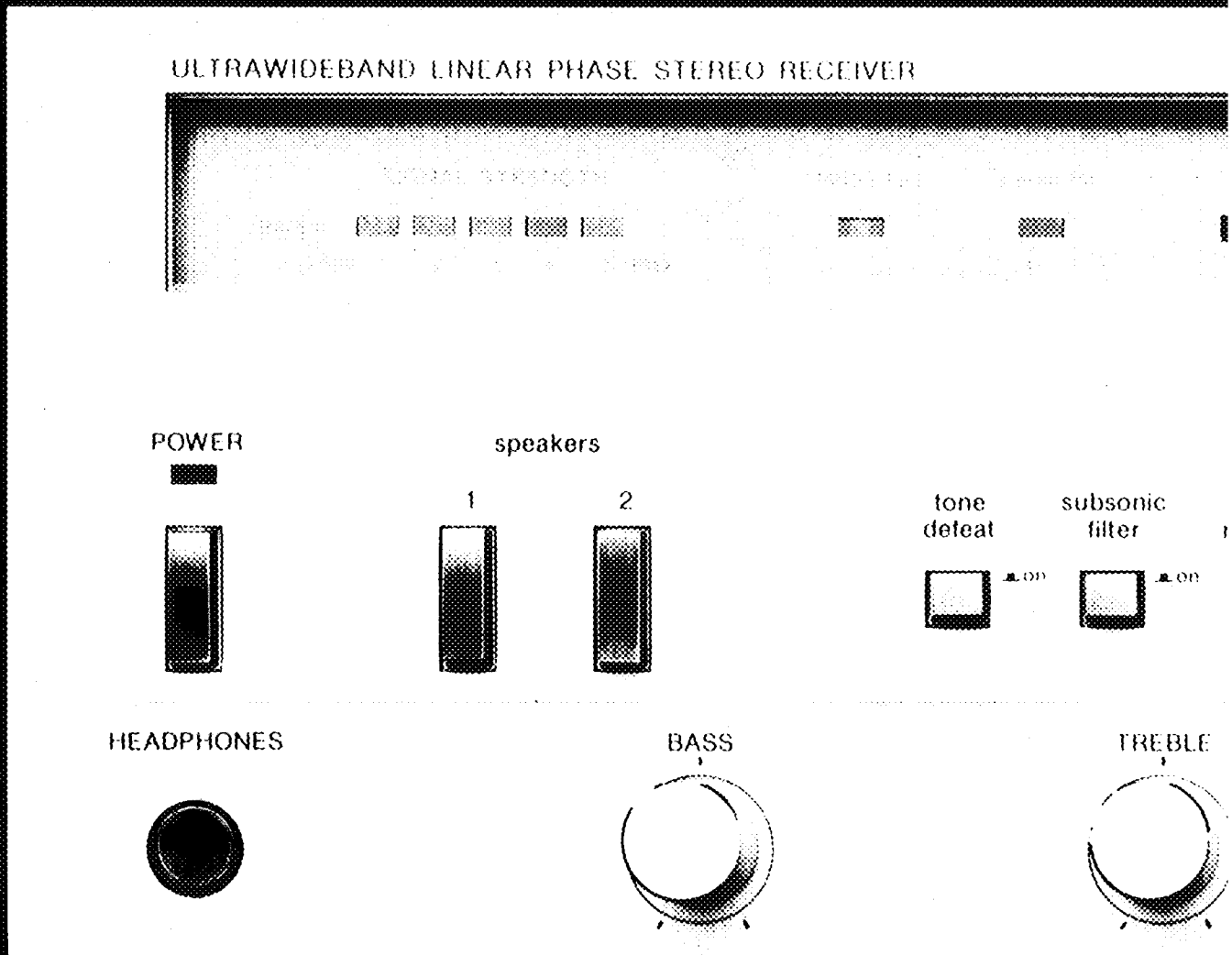
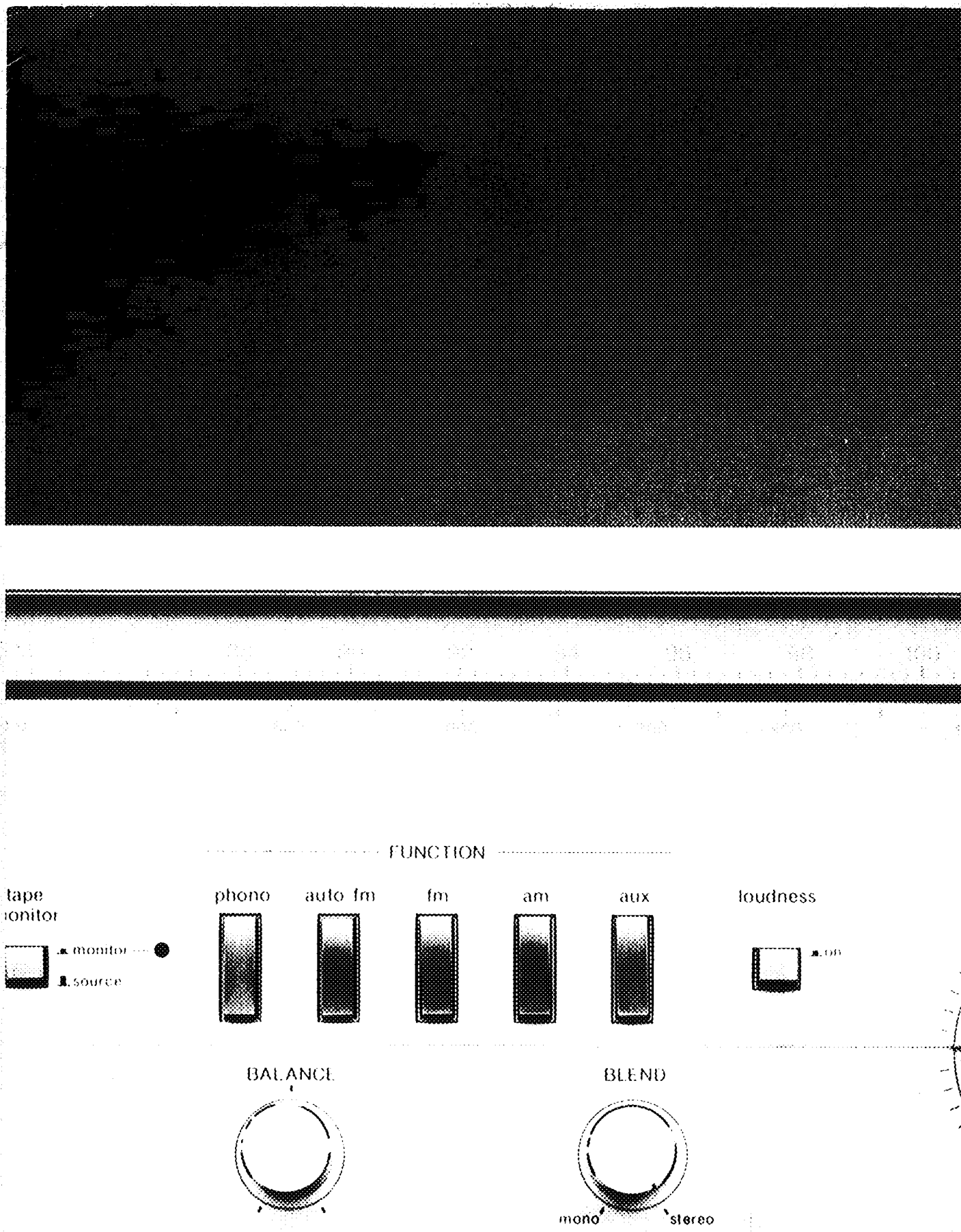
bedienungsanleitung
manuale sul funzionamento
bruksanvisning

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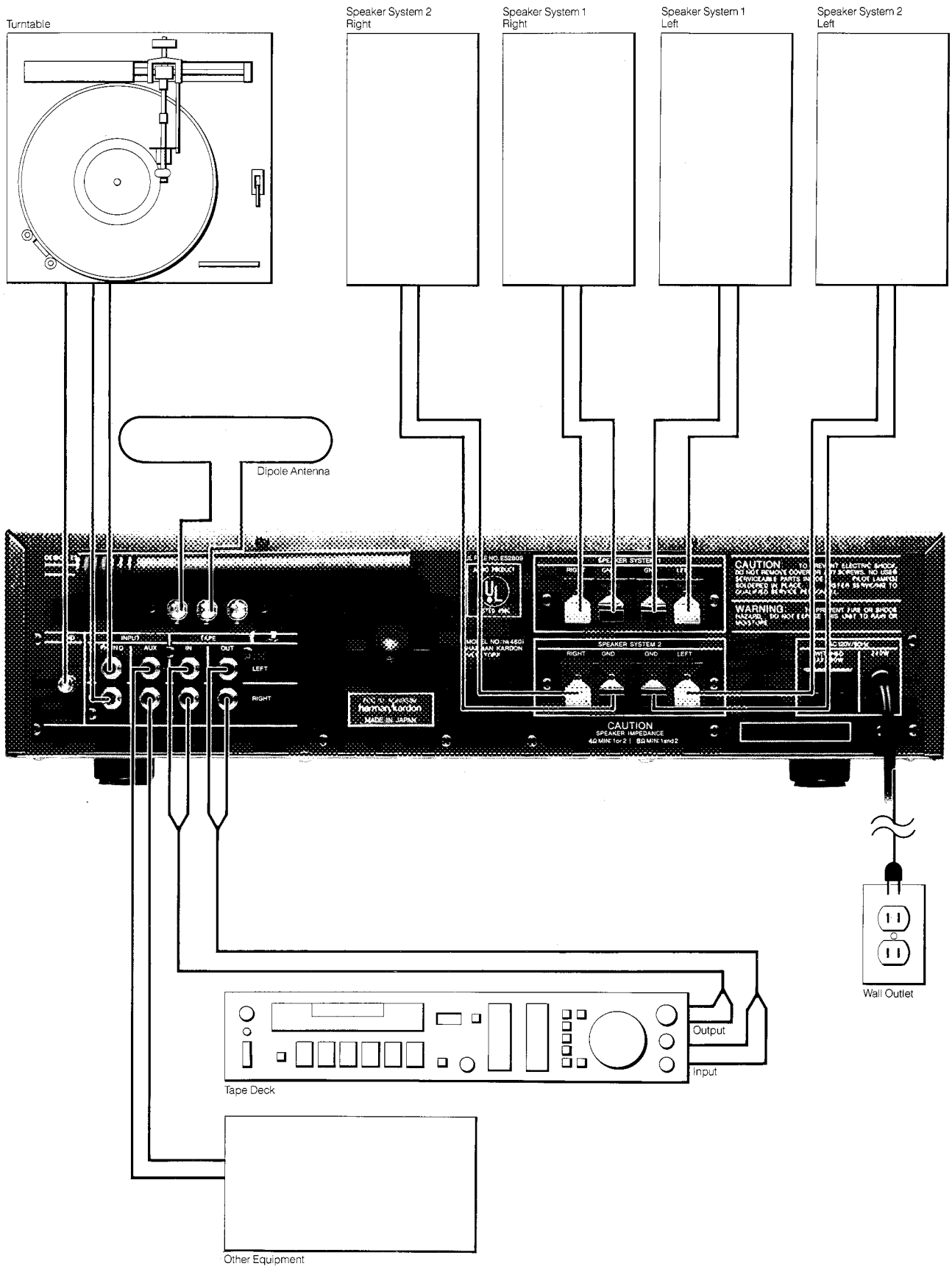
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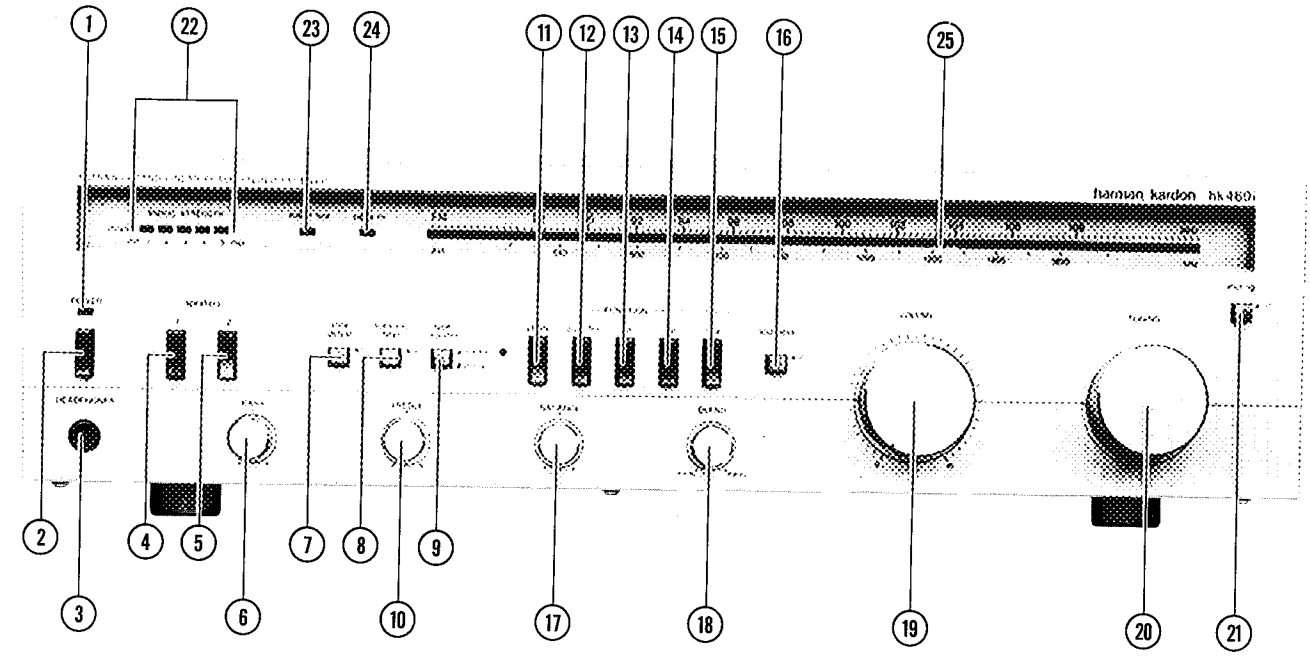
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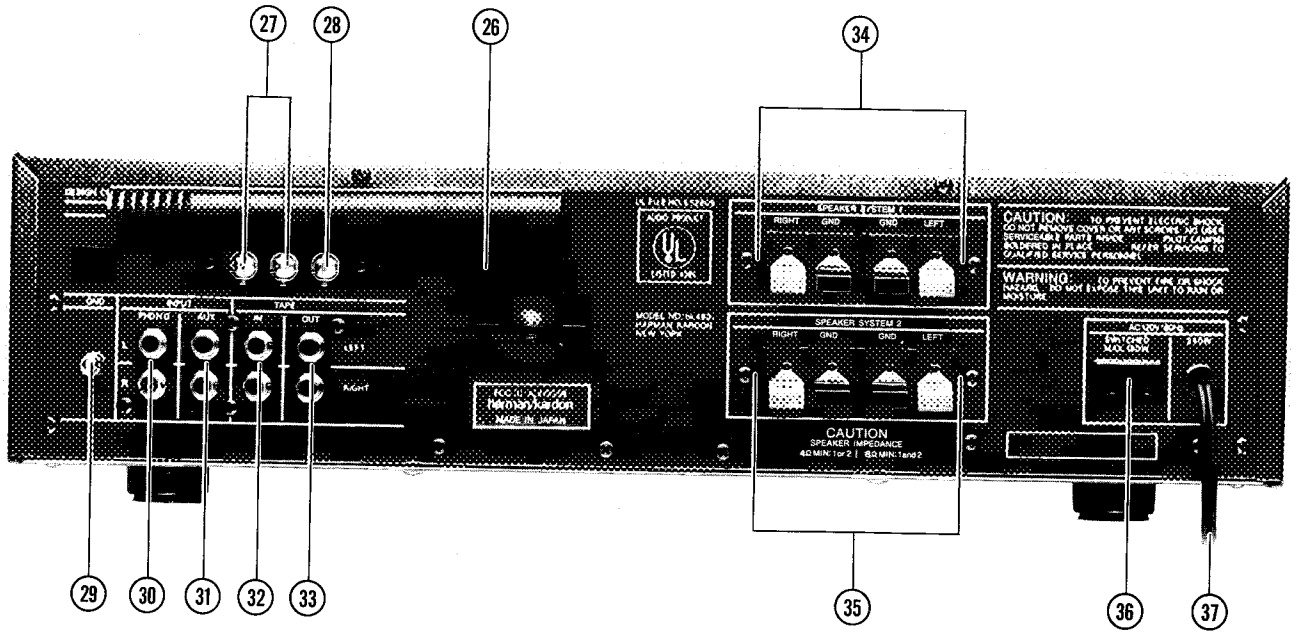
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Owner's manual hk460i

Your investment in a component high fidelity system indicates you have a more than average interest in music. The fact that your investment includes a Harman Kardon Ultrawideband Stereo Receiver shows us your appreciation of uncompromised reproduction of the music you enjoy. Throughout the design and manufacture of this unit, we made every effort to assure it will meet all of your expectations.

To ensure continuing high performance, read this manual carefully before you connect and operate your hk460i.

Warning

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

Warning

Do not mistake the ferrite loopstick AM antenna for a handle. Its bracket cannot support the unit.

Connections

For the moment, leave the POWER LINE CORD (37) of the hk460i unconnected. Put the unit on the shelf or table where it will be installed. Leave enough working space so you can make all connections easily.

The hk460i requires adequate ventilation. It should not be installed on a cushion or rug, and a minimum of two inches (5cm) clearance should be provided above and behind.

Like most stereo equipment, your hk460i is fitted with pin type RCA connectors to accept standard pin type RCA patch cords. If these are not compatible with your other equipment, consult your audio dealer for patch cords with proper adaptors.

Connecting your turntable to the hk460i

Turntables are supplied with their own signal cables. Consult the owner's manual and determine which cable is for the left channel and which is for the right channel.

Insert the left channel cable into the left PHONO INPUT connector (30) on your hk460i. Insert the right channel cable into the right PHONO INPUT connector (30). Push the plugs in all the way so they are firmly seated, making good electrical contact.

If your turntable has a separate ground wire, connect it to the knurled thumbscrew on the receiver is marked GND (29).

Connecting your tape deck to the hk460i

To connect a tape deck, connect the left output connector of your tape deck to the left TAPE INPUT connector (32) on your hk460i. Now connect the right output connector of your deck to the right TAPE INPUT connector (32) on your hk460i.

Using a second pair of patch cords, connect the left input connector of your deck to the left TAPE OUTPUT connector (33) on your hk460i. Now connect the right input connector of your deck to the right TAPE OUTPUT (33) on your hk460i. Push the plugs in all the way so they are firmly seated, making good electrical contact.

Connecting other equipment to the 460i

A pair of AUXILIARY INPUTS (31) is available at the rear of the hk460i for the connection of any "high level" output equipment. A special tuner for long wave, marine, aircraft or citizen's bands, etc., may be connected. Or you may choose to connect the output of the audio section of a television receiver. Any number of choices are available. Consult your audio dealer for information as to what equipment is compatible with your hk460i.

Connecting Speakers

Use two-conductor stranded wire to connect your speakers to the receiver. Eighteen gauge lamp cord (zip cord) is satisfactory, but a heavier gauge (16 or 14 gauge) is preferable, especially for distances over 25 feet.

Cut two segments of wire long enough to reach each speaker. Separate the conductors at each end of the wire segments for a length of two or three inches. Then carefully remove about one-quarter inch of insulation from each free end. Twist the strands of each conductor so they are smooth and tight with no loose strands.

Lamp cord usually provides a "code" that differentiates the two conductors. A conductor may be coded by a rib, sharp corner, or indentations molded along the length of the insulation. In some cases, a thin colored thread is molded inside the insulation of one conductor. In others, one conductor is darker than the other, or the insulation of each conductor is of a different color. Connect the bare ends of one segment of lamp cord to your right speaker as follows: Connect the coded conductor to the speaker's positive ("+") terminal, and the uncoded conductor to negative ("−"). (The "+" and "−" markings are in general use, although some speakers use other labeling systems, such as "1" and "2," "A" and "B" and so on.)

Find the appropriate row of speaker connectors on the receiver marked SPEAKER SYSTEM 1 (34). Push in on the red plastic head of the connector marked RIGHT to reveal an opening beneath. Insert the bare end of the coded conductor into the opening. Release the connector. The conductor should now be locked firmly into place. Insert the uncoded conductor into the adjacent black connector marked GND.

Repeat the procedure for the left speaker, taking care to observe the coding of the conductors as described for the right speaker. If the code is followed as described, your speakers will be connected "in phase," which is important for solid bass and precise lateral location of the sound source. To connect a second pair of speakers, repeat the procedure for the right and left speakers of the second pair, using the receiver terminals marked SYSTEM 2 (35).

Connecting AM antenna

The ferrite loopstick AM ANTENNA (26) on the rear of the hk460i can be rotated to improve the reception of distant stations. AM reception over extremely long distances can be obtained with an external "long wire" antenna, which can be connected to the AM ANTENNA terminal (28).

Connecting FM antenna

A T-shaped (dipole) FM antenna is supplied with the receiver. However, reception will be greatly improved if the receiver is connected to an outdoor FM antenna system. If you live in a fringe reception area, or if your house is situated among obstructions (such as mountains or tall buildings), you may need a powerful, directional FM antenna.

If no outdoor antenna is available, connect the lugs of the dipole (supplied with the unit) to the FM 300Ω BAL terminals (27). The dipole can then be tacked or taped to a wall or the back of a shelf.

AC convenience outlet*

An AC outlet (36) on the rear panel of the hk460i provides power connections for a turntable, tape deck or other equipment.

The outlet is marked SWITCHED and provides power only when the receiver is turned on.

If you have completed the connections above, you are now ready to place the hk460i in its permanent position and plug the POWER LINE CORD (37) into an AC outlet. To turn the unit on and off, press the POWER switch (2). When power is on, the POWER indicator (1) will light.

To operate your hk460i

Speaker selection and headphones

The SPEAKER 1 (4) and SPEAKER 2 (5) switches select the pair of speakers to be played.

When either switch is depressed, the corresponding pair of speakers is activated.

The front panel HEADPHONES jack (3) accepts headphones for personal listening. Headphones may be used simultaneously with speakers if desired.

To play records

Depress the PHONO pushbutton (11), activate your turntable, and advance the VOLUME control (19) clockwise to a comfortable level.

If you hear a hum at average listening levels, turn the POWER switch (2) off and check to see that phono and ground connections are secure.

To listen to broadcasts

To tune an FM station, press the AUTO FM pushbutton (12) and rotate the TUNING knob (20) until the DIAL POINTER (25) is tuned to the desired FM station on the upper scale and the STATION LOCK indicator (23) lights. When a stereo broadcast is received, the STEREO FM Indicator (24) will automatically light. In the Auto FM mode, the 460i will automatically shift into the mono mode when signals are too weak for good stereo reception. However, this feature may be defeated by pressing the FM pushbutton (13).

To tune an AM station, press the AM pushbutton (14) and follow the tuning procedures above, reading the frequency of the AM station from the lower scale.

Signal strength is indicated by the series of five LEDs marked SIGNAL STRENGTH (22)—as the signal gets stronger, more LEDs will light. Fine adjustments may be made with the TUNING KNOB (20) until maximum signal strength is reached.

In its "on" position (out), the MUTING button (21) will automatically mute the "hiss" that occurs when tuning between stations and weak or distant stations might not be received. To improve reception of such stations, press the MUTING button (21) to its "off" positon (in).

Auxiliary equipment

If you have connected other equipment to the AUXILIARY INPUT connectors (31), you may listen to this program source by pressing the AUXILIARY pushbutton (15).

To play tapes

The TAPE MONITOR pushbutton (9) admits programs from tape decks connected to the TAPE INPUT connectors (32). When you wish to play a tape or program source connected to the TAPE INPUT (32), depress the TAPE MONITOR pushbutton (9) to its MONITOR position (in).

To record tapes

The hk460i allows you to record program materials from any source selected by the function control pushbuttons (11) (12) (13) (14) (15).

Place the TAPE MONITOR pushbutton (9) in its SOURCE position (out). Activate the program source and place your deck in record mode.

*In some countries, owing to Safety Agency Electrical requirements, these AC receptacles are covered.

To listen to the original program, leave the TAPE MONITOR pushbutton (9) in its SOURCE position (out). To monitor the new recordings as they are being made press the TAPE MONITOR pushbutton (9) to its MONITOR position (in).

The VOLUME control (19), BALANCE control (17), and various tone controls do not affect the signal at the TAPE OUTPUT connectors (33). Hence you may change the settings of these controls without altering a tape recording in progress.

Volume, balance, loudness and tone controls

To increase the volume, turn the VOLUME control (19) clockwise. The BALANCE control (17) shifts the sound to one speaker or the other.

The BASS and TREBLE controls (6) (10) affect the frequency balance of the program material. Their neutral positions are at 12 o'clock. Turning the TREBLE controls (10) clockwise increases the high frequencies.

The BASS control (6) has the same effect on low frequencies

When the LOUDNESS button (16) is in its "on" position (in), very high and very low frequencies are boosted at low settings of the VOLUME control (19). This compensates for the ear's relative insensitivity to extreme frequencies at low volume levels. The LOUDNESS button (16) has very little effect at volume settings beyond 12 o'clock.

Mono/stereo blend

The MONO/STEREO BLEND control (18) allows you to compensate for a variety of speaker placements. Ideally, the distance between the speakers should be about the same as the distance from the listener to a point midway between the speakers. Under these conditions, the MONO/STEREO BLEND control (18) should be in its full stereo position (full clockwise). If the distance between the speakers is substantially greater than the distance to the listener, stereo imaging may be improved by rotating the MONO/STEREO control (18) counterclockwise toward the mono setting.

The hk460i also incorporates two additional controls, a SUBSONIC FILTER (8) and a TONE DEFEAT (7). Placing the TONE DEFEAT button (7) in its "on" position (in) eliminates the action of the BASS and TREBLE controls (6) (10) to allow for critical evaluation of their effect. Placing the SUBSONIC FILTER button (8) in its position (in) engages a filter to protect your speakers from inaudible low-frequency signals caused by severe record warp, acoustic feedback or tone arm resonance.

Maintaining appearance

Clean the metal panel with mild, diluted detergent applied with a soft cloth or cotton swab. Never use a strong abrasive cleaner.

Remove dust or smudges from the acrylic front window with diluted glass cleaner applied with a soft cloth. Do not use a strong solvent-type cleaner or ammonia.

The hk460i is a high quality precision instrument. If the instructions in this manual are followed thoughtfully, the receiver should provide many years of musical pleasure.

Congratulations

Your new Harman Kardon High Technology Receiver is now properly connected and ready to use. We hope you'll enjoy it for years to come.

If in the future you decide to add a cassette deck to your system, we hope you'll consider one of the new Harman Kardon High Technology Metal Cassette Decks. They're styled to be the perfect mates to our High Technology Receivers. In addition to being metal compatible, they also give you the all new Dolby HX headroom extension system for superb performance. Performance that can't be topped by anything less than a professional open reel deck.

Again, congratulations on your new receiver. With a little care, it will provide enjoyment for a long, long time.